Research Article

Influence of Service Costs on Financial Sustainability of the Water Companies in North Rift Counties of Kenya

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Abstract: This study aimed at establishing the effect of service costs on the scheme types adopted by the water companies in the North Rift Counties of Kenya. The findings from this study would be of significance to various stakeholders. The study as constructed on: The New Economic Theory; Budget Theory; Modern Portfolio Theory and theory of Financial Control. This study adopted a constructivist paradigm with a survey research design as it assumes quantitative methodology. The target population consisted of all water companies in the North Rift Counties of Kenya with a registered pension scheme. This study utilized census sampling. The study used questionnaires as a tool for data collection. A pilot study was done to determine the reliability and validity of the study. Data was described using descriptive statistics such as mean and standard deviation, which gave meaning to describing the distribution of responses. Various factor analysis statistics were used to infer population characteristics from the study sample. Pearson's correlation coefficient was used to establish relationships between variables. The study findings show that there is a significant relationship between service cost reforms and financial sustainability. Drawing on these findings, the study recommends that one of the strategies is that the Retirement Schemes should now strengthen their Service Cost Reforms to enable those overcome financial related challenges.
Keywords: Service costs, financial sustainability, water companies.

Introduction

Financial sustainability is defined as the consistency of firms in generating the positive outcomes that not only covers cost but also accelerate the firm growth. The aftermaths of subprime crisis have revealed the fact that the firms with financial sustainability were least affected from financial crisis (Gofman, 2017). Financial Sustainability is an institution's ability to replicate its success over time in industry, which has become an investment criterion for many investors and pension funds (Abdulahi and Tewari, 2017). Financial sustainability has been used to describe institutional sustainability, or the likelihood of making a profit from institutional operations. Financial sustainability and development have a direct influence with social harmony and a county's Gross Domestic Development (Dorfman *et al.,* 2013). This argument is supported by Grech (2010) who argues that since the protection of pensioners is vital for any pension system, it is important therefore to manage the shortcomings which come with the system with an aim of ensuring financial sustainability. Across the globe, several sprouted pension systems are striving to deliver adequate retirement incomes coupled with financial sustainability because of the ageing population, which is characterized by increasing longevity and low fertility rates. Many countries have, thus, launched significant pension reforms including higher retirement ages, savings in pensions and changes in the calculation of pension entitlements amongst others (Organization for Economic Co-operation and Development (OECD, 2015).

There are different types of social security schemes in Tanzania that are established under the Acts of parliament. These are the National Social Security Scheme (Pension Act No. 28, 1997), Parastatal Pension Scheme (Pension Act No. 14 of 1978), Public Service Pension scheme (Pension Act No. 2 of 1999) and other schemes established before independence like the Government Pension scheme (Pension Ordinance Cap 371 of 1954), Government Employees Provident Fund (Cap 51 of 1942).

These schemes were established primarily to provide benefits to its members. But these schemes differ from one to another depending on the coverage (membership) and profit package, which based on Act, recognized the scheme concerned. Also, in Tanzania the retirees are covered by in five different Pensions Funds which are Local Authorities Pension Fund, Public Service Pension Funds, Government Employees Provident Fund, National Social Security Fund, Parastatal Pension Fund and National Health Insurance Fund (NHIF). Despite the many efforts (mechanism in place) made by Tanzanian Government in improving the pension sectors; retirees have been and continue to face a lot of challenges including delays when accessing their terminal benefits. One of the major challenges in accessing terminal benefits by retired civil servants is delay in payment. This has been a deep-rooted problem to many retirees especially those from public service. For a long time now, it has been a usual practice for retirees to spend more than a year without getting their pension (Rwegoshora, 2016; URT, 2010).

Service Costs and Financial Sustainability
According to Chirchir, (2010) the defined contribution scheme is referred to as money purchase scheme. The benefits are limited to cash balances in member's account at any one point in time and all risks are borne by the employees. The cash balance depends on contribution period and amount and the investment returns. Contribution amounts are known to the members upfront but the final benefits due to investment remains unknown. The employer does not take liability for losses; employer's risks are limited to making contributions at the required time. Employer's expenses are in essence predictable. In this scheme a member and employer's contribution are fixed as a percentage of pensionable earnings. Over the last two decades, many organizations have made changes to the employee pension plans they sponsor, and a number of these have chosen to convert their defined benefits scheme into defined contribution scheme (Aiyabei, 2014). The employers with defined benefits scheme are looking to contain their pension costs. Accordingly, many are switching to defined contribution scheme in an effort to achieve more predicable funding costs.

Traditionally, funded occupational pension schemes were designed around Defined Benefits Pension; Defined contribution plans accounted for a small fraction of employer sponsored pensions and were typically offered by smaller firms or as supplementary plans for high income earners. Most employers in the past have used defined benefit plans in competitive labour markets to attract and retain skilled worker as opposed to defined contribution plans where the benefits are portable once vested to the members (Turner *et al.,* 2008).

Employers view their Occupational Pension Schemes as an important means of attracting, retaining, motivating and increasing the level of job satisfaction amongst the staff (Wanjohi *et al.,* 2011). The prospect of an occupational pension scheme can be attractive to employee in several ways. Looking first at the recruitment process, one might expect the would-be employees will consider whether the employer offers a pension scheme at all. Such an employer is likely to be perceived as having a 'caring' orientation towards the staff, quite apart from the current and future financial benefits that pension schemes provide.

Materials and Methods
Sekaran and Bougie (2013) states that a research design is the glue that binds the research together. Therefore, research design should have a clearly defined purpose and consistency between the research questions and the proposed research method. This study used a survey design as it was suitable to obtain quantitative data using questionnaires as the tools of data collection. The target

population consisted of the all the financial managers in the water companies, a total of 76 respondents. This study utilized census sampling technique to select the whole population as a sample for the study. Pearson Product Moment was used to establish the reliability index where if a reliability co-efficient of greater than 0.70 was obtained on all the quantitative items, the tool was considered reliable. The information from the quantitative data analysis was presented in terms of means and standard deviations. Further, the data was processed for correlational analysis.

Descriptive Results
Before analyzing the regression analysis, the study examined the descriptive statistics of the study sample based on the specific objectives. It is vital to explain how the mean values were interpreted though out this study. Mean values close to the high end of the scale (closer to 5) indicate high level and in contrast, mean values close to the lower end of the scale (1) indicate low level of the values. This interpretation was used throughout this study.

Table 1. Descriptive Statistics

Scale	Mean	Std. Deviation	Skewness		Kurtosis	
	Statistic	Statistic	Statistic	Std. Error	Statistic	Std. Error
Service Costs	3.35	.956	.437	.343	.023	.674
Sustainability	3.23	1.077	-.588	.343	.001	.674

Cost management function of pension reforms had an above average performance (M=3.35, SD=.956) with financial sustainability recording an above average (M= 3.23, SD=1.077). The skewness and Kurtosis are all less than one (absolute). This latter result suggests that the responses from the participants are normally distributed around the mean. This is positive results going forward because the data is representative of the population it was drawn.

Correlation Results
The data was further computed for correlational analysis and the findings were recorded in table 2.

Table 2. Correlations

		1	Sustainability
1	Pearson Correlation	1	
	Sig. (2-tailed)	.000	
Sustainability	**Pearson Correlation**	**-.588****	**1**
	Sig. (2-tailed)	.000	
**. Correlation is significant at the 0.01 level (2-tailed).			

Service cost reforms are significantly associated with Financial Sustainability (r = .588, p<.001) and the association is positive. Retirement schemes that are able to maintain above average Service cost reform, on average outperform the retirement scheme with below average reforms in Service Cost.

Regression Assumptions
The multicollinearity assumption: regression assumes that the independent variables in the model are not highly correlated (multicollinear). This assumption is tested by observing correlation matrix of the independent variable. The correlation results (table 3) showed that data does not suffer from multicollinearity issues since no pair of independent variable are highly correlated (rho>0.7).

Also multicollinearity is assessed using Variance Inflation Factor. VIF values less that 10 are considered an indication of no significant multicollinearity. VIF results (Table 3) suggests the assumption is met.

Table 3. Collinearity statistics

	Tolerance	VIF
Service Cost	.796	1.256

It is assumed that the errors are constant along all values of the dependent variable. A plot of regression residuals against the predicted values is used to check for the assumption. The plots of the residual (errors) should not show any pattern or funning out for the assumption to be met.
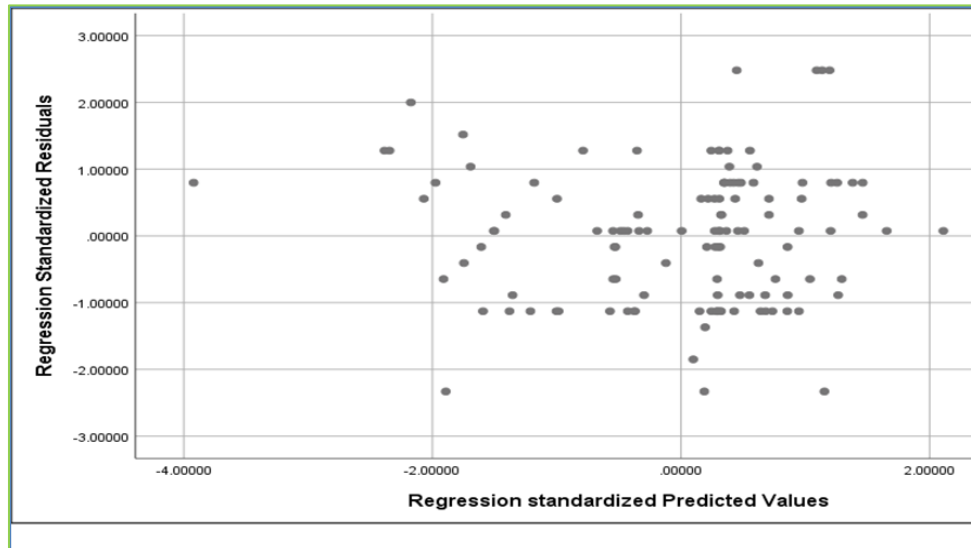

Figure 1. Heteroscedasticity results

As seen from the results in Figure 1, the assumption is not significantly violated. No particular pattern emerges. The assumption is therefore met as no any pattern or funning is shown from the regression standardized predicted values.

Regression Results

Table 4. ANOVA

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	27.826	4	6.957	30.399	.000
	Residual	9.840	43	.229		
	Total	37.667	47			

The ANOVA results (table 4) shows that the model is a good model to predict level of financial sustainability from scores in retirement reforms ($F_{(4, 43)}$) =30.399, p<.000). The model is better than the null model such that the knowledge or information available on retirement reforms is critical in informing better estimation of financial Sustainability than without the information. Based on the ANOVA results, it is critical for retirement to have good scores and records of the retirement reform implementation scores. It is seen that one of them is service cost reforms (B=.100, t=3.226, p<.001). Based on this result an increase in service cost reforms by say 100 units, then Financial Sustainability will increase by 10 units.

Table 5. Coefficients

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	.079	.323		.243	.809
Service Cost Reform	.100	.031	.102	3.226	.000

Overall, regression findings have underpinned the importance of new reforms in financial sustainability of retirement schemes. As noted in the model summary results, the reforms accounts for almost three-quarters of variability in financial sustainability performance. Retirement schemes with strategies to raise the reform score is evidently a differentiating factor between financial success and financial failure.

Conclusions
From the study findings, it is concluded that, service cost reforms enhance financial sustainability of retirement schemes and it is one of the strategies the schemes can remain sound financial.

Recommendations
The study recommends that pension administrators should endeavor to keep service Cost to the bare minimum to enable the new reforms make sustainable meaning hence enabling the retirement schemes play a critical role especially for retires.

Conflicts of interest
There is no conflict of interest of any kind.

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